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| 10/762,516 | 01/23/2004 | Sang Woon Suh | 1740-000042/US | 5361 |
| 30593 7590 08/18/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195 | | | | |
| EXAMINER DEBNATH, SUMAN | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/762,516

Applicant(s)

SUH ET AL.

Examiner

SUMAN DEBNATH

Art Unit

2435

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27, 28, 30-38, 40, 54, 56-65 and 67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27, 28, 30-38, 40, 54, 56-65 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :05/20/2009; 07/09/2009; 08/03/2009.

DETAILED ACTION

1. Claims 27-28, 30-38, 40, 54, 56-65 and 67 are pending in this application.
2. Claims 27, 35, 56 and 62 are currently amended.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 27-28, 30-38, 40, 54, 56-65 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (Patent No.: US 6,289,102 B1) (hereinafter, "Ueda") and further in view of Timmermans et al. (Patent Number: US 5,737,286) (hereinafter, "Timmermans").
5. As to claim 27, Ueda discloses A recording medium, comprising:
first area for storing control information required basically for recording or reproducing user data (FIG. 3, 10 & 11, col. 7, lines 31-38, which describes lead-in area and data recording area, see also, col. 15, lines 1-7); and
second area for storing copy protection information for use in generating or processing copy protected user data, the copy protection information being repeated in a specific data units, the copy protected user data being encrypted user data and the copy protection information being required to encrypt/decrypt the user data (FIG. 3, 10 & 11, col. 7, lines 31-38, col. 13, lines 23-32, see also, col. 14, lines 19-25, "The file A is partitioned into a plurality of continuous sectors", col. 15, lines 1-7 and lines 30-60),

wherein the control information in the first area and the copy protection information in the second area are recorded separately, data structure of the copy protection information in a first specific data unit is different from data structure of the copy protection information in a second specific data unit, and at least one of the copy protection information in the first specific data unit (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

Ueda doesn't explicitly disclose the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area. However, Timmermans discloses the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area (col. 7, lines 9-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Ueda in the track wobble of the optical disc in order to aid in the digital file recovery process as taught by Timmermans (Timmermans, col. 7, lines 9-12).

6. As to claim 28, the combination of Ueda and Timmermans disclose wherein the copy protection information is key information for use in encrypting/decrypting the user data (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

7. As to claim 30, the combination of Ueda and Timmermans disclose wherein the first area further includes indicating information for indicating whether the recording

medium contains the copy protection information, the indication information being formed as a wobbled pattern (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

8. As to claim 31, the combination of Ueda and Timmermans disclose wherein the at least one of the copy protection information in the first specific data unit and the copy protection information in the second specific data unit is within a lead-in area of the recording medium (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

9. As to claim 32, the combination of Ueda and Timmermans disclose wherein the indicating information and/or the copy protection information are recorded by phase modulated method (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

10. As to claim 33, the combination of Ueda and Timmermans disclose wherein the copy protection information is stored alternatively in another area different from the second area (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

11. As to claim 34, the combination of Ueda and Timmermans disclose wherein the data structure of the copy protection information in the first specific data unit is different

from the data structure of the copy protection information in the second specific data unit with respect to a modulation method (Ueda, FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

12. As to claim 35, Ueda discloses a method of recording data on a recording medium, comprising:

recording control information required basically for recording or reproducing user data in a first area (FIG. 3, 10 & 11, col. 7, lines 31-38, which describes lead-in area and data recording area, see also, col. 15, lines 1-7); and

recording copy protection information for use in generating or processing copy protected user data in another area different from a second area, the step of recording copy protection information comprising copying the copy protection information from the second area to said another area, the copy protected user data being encrypted user data and the copy protection information being required to encrypt/decrypt the user data (FIG. 3, 10 & 11, col. 7, lines 31-38, col. 13, lines 23-32, see also, col. 14, lines 19-25, "The file A is partitioned into a plurality of continuous sectors", col. 15, lines 1-7 and lines 30-60),

wherein the control information in the first area and the copy protection information in the second area are recorded separately, and data structure of the copy protection information in a first specific data unit is different from data structure of the copy protection information in a second specific data unit in the second area (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

Ueda doesn't explicitly disclose the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area. However, Timmermans discloses the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area (col. 7, lines 9-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Ueda in the track wobble of the optical disc in order to aid in the digital file recovery process as taught by Timmermans (Timmermans, col. 7, lines 9-12).

13. As to claim 36, the combination of Ueda and Timmermans disclose further comprising: recording indicating information for indicating whether the recording medium contains the copy protection information in the first area (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

14. As to claim 37, the combination of Ueda and Timmermans disclose wherein the step of recording the copy protection information comprises recording the copy protection information in another area within a lead-in area of the recording medium (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

15. As to claim 38, the combination of Ueda and Timmermans disclose wherein the indicating information and/or the copy protection information are recorded by phase modulated method (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

16. As to claim 40, the combination of Ueda and Timmermans disclose the data structure of the copy protection information in the first specific data unit is different from the data structure of the copy protection information in the second specific data unit with respect to a modulation method (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

17. As to claim 54, further comprising: third area provided between the first area and the second area, the third area being used for transition between the first area and the second area.

18. As to claim 56, Ueda discloses a method of reproducing data from a recording medium, comprising:

reading control information required basically for reproducing user data from a first area (FIG. 3, 10 & 11, col. 7, lines 31-38, which describes lead-in area and data recording area, see also, col. 15, lines 1-7); and

detecting copy protection information for use in processing copy protected user data from a second area, the copy protection information being repeated in a specific data units, the copy protected user data being encrypted user data and the copy protection information being required to encrypt/decrypt the user data (FIG. 3, 10 & 11, col. 7, lines 31-38, col. 13, lines 23-32, see also, col. 14, lines 19-25, "The file A is partitioned into a plurality of continuous sectors", col. 15, lines 1-7 and lines 30-60),

wherein the control information in the first area and the copy protection information in the second area are recorded separately, data structure of the copy protection information in a first specific data unit is different from data structure of the copy protection information in a second specific data unit, and at least one of the copy protection information in the first specific data unit (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

Ueda doesn't explicitly disclose the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area. However, Timmermans discloses the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area (col. 7, lines 9-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Ueda in the track wobble of the optical disc in order to aid in the digital file recovery process as taught by Timmermans (Timmermans, col. 7, lines 9-12).

19. As to claim 57, Ueda discloses wherein the step of detecting includes detecting the copy protection information from a lead-in area of the recording medium (FIG. 3, 10 & 11, col. 7, lines 31-38, see also, col. 15, lines 1-7).

20. As to claim 58, the combination of Ueda and Timmermans disclose further comprising: detecting indicating information for indicating whether the recording medium contains the copy protection information from the first area (Ueda, FIG. 3, 10 & 11, col.

7, lines 31-38, see also, col. 15, lines 1-7), the indication information being formed as a wobbled pattern, wherein the copy protected information is detected based on the indicating information (Timmermans, col. 7, lines 9-14).

21. As to claim 59, the combination of Ueda and Timmermans disclose wherein the detecting step detects the copy protection information and the indicating information by a push-pull method (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

22. As to claim 60, the combination of Ueda and Timmermans disclose wherein further comprising: processing the user data based on the control information and the copy protection information (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

23. As to claim 61, the combination of Ueda and Timmermans disclose wherein the step of processing includes decrypting a copy protected user data (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

24. As to claim 62, Ueda discloses an apparatus for reproducing data from a recording medium, comprising:

a detection unit configured to detect control information required basically for reproducing user data from a first area and copy protection information for use in processing user data from a second area, the copy protected user data being encrypted user data and the copy protection information being required to encrypt/decrypt the user

data (FIG. 3, 10 & 11, col. 7, lines 31-38, which describes lead-in area and data recording area, see also, col. 15, lines 1-7), wherein the detection unit is configured to detect the copy protection information formed repeatedly in at least one of specific data units (FIG. 3, 10 & 11, col. 7, lines 31-38, col. 13, lines 23-32, see also, col. 14, lines 19-25, "The file A is partitioned into a plurality of continuous sectors", col. 15, lines 1-7 and lines 30-60), wherein data structure of the copy protection information in a first specific data unit is different from data structure of the copy protection information in a second specific data unit, at least one of the copy protection information in the first specific data unit and the control information in the first area and the copy protection information in the second area are recorded separately (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32); and a controller configured to control the detection unit to detect the control information from the first area and the copy protection information from the second area (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32).

Ueda doesn't explicitly disclose the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area. However, Timmermans discloses the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area (col. 7, lines 9-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the teaching of Ueda in the track wobble of the optical disc in order to aid in the digital file recovery process as taught by Timmermans (Timmermans, col. 7, lines 9-12).

25. As to claim 63, the combination of Ueda and Timmermans disclose wherein the detection unit is configured to read the specific data units within a lead-in area of the recording medium to detect the copy protection information according to the control of the controller (Ueda, FIG. 3, 10 & 11, col. 7, lines 31-38, see also, col. 15, lines 1-7).

26. As to claim 64, the combination of Ueda and Timmermans disclose wherein the detection unit is further configured to detect indicating information for indicating whether the recording medium contains the copy protection information from the first area (Ueda, FIG. 3, 10 & 11, col. 7, lines 31-38, see also, col. 15, lines 1-7), the indication information being formed as a wobbled pattern (Timmermans, col. 7, lines 9-14).

27. As to claim 65, the combination of Ueda and Timmermans disclose wherein the detection unit is configured to detect the copy protection information and the indication information by a push-pull method (Ueda, FIG. 11, col. 15, lines 1-7 and lines 30-40).

28. As to claim 67, the combination of Ueda and Timmermans disclose further comprising: a data processor configured to process the user data read based on the control information and the copy protection information (Ueda, FIG. 3, FIG. 11, col. 15, lines 1-7 and lines 30-40).

29. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the Applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the Applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

30. Applicant's arguments filed May 20th, 2009 have been fully considered but they are not persuasive.

31. Applicant asserts that: "Further to the Examiner's request to provide information from the claims and/or specification that more fully describe the terms "control information" and "copy protection information," the Applicant provides the following, in claim 27, the term "control information" is described in the claim as information "required basically for recording or reproducing user data." Non-limiting examples in the specification may be found in paragraphs [0008] and [0078] and various other portions of the specification.

Applicant should note that the Specification of the instant application contains 17 pages and paragraph [0001] -[0077]. Thus, [0078] doesn't exists. Paragraph [0008]

doesn't contain any topic related to control information. Furthermore, claim 27 was not part of the original discloser; thus, "control information" which described in the claim 27 as information "required basically for recording or reproducing user data" may not be considered as part of the original discloser unless Specification supports such limitation. Thus, Applicant may consider revising the limitation "first area for storing control information required basically for recording or reproducing user data", because such a limitation may not qualify as part of the claimed priority date. Further, explanation and/or clarifications are expected.

32. Applicant argues that: "An Office Action must explain why the differences between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art."

In response to applicant's argument, it should be noted that, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation for the rejections is found both in the knowledge generally available to one of ordinary skill in the art and in the cited references. Furthermore, primary reference Ueda discloses the main inventive concept expect forming the unit as a wobbled pattern and is combined with Timmermans, which

discloses the copy protection information in the second specific data unit is formed as a wobbled pattern in the second area (col. 7, lines 9-14).

33. Applicant argues that: "[t]here is no teaching that the data structures of the scrambled sectors are different. Thus, the data structure of the scrambled sectors is the same."

Examiner disagrees and maintains that data structure of the copy protection information in a first specific data unit is different from data structure of the copy protection information in a second specific data unit (FIG. 10, col. 14, lines 19-25, see also col. 7, lines 31-38, col. 13, lines 23-32; Applicant is directed to FIG. 10, which has scramble information, which indicates scrambled sectors have different data structures (i.e. different scramble seed value). FIG. 10 is explained in great details in FIG. 11 and 12 which specify different data structure for multiple sectors see also FIG. 3).

Conclusion

34. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUMAN DEBNATH whose telephone number is (571)270-1256. The examiner can normally be reached on 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. D./
Examiner, Art Unit 2435

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435